

Postdoctoral position in genomics/epigenomics of barley

University of Dundee at JHI, Scotland UK

Reference Number: LS0087
Closing Date: 29 August 2011

Applications are invited for a post-doctoral position in the Division of Plant Sciences of the University of Dundee (UoD) at the James Hutton Institute (formerly Scottish Crop Research Institute - SCRI), to work on the genomics and epigenomics of heterochromatin in barley. The Division of Plant Sciences is located on the JHI site at Invergowrie on the outskirts of Dundee, Scotland. This position is funded by the UK Biotechnology & Biological Sciences Research Council (BBSRC) and is available for 3 years, starting around January 2012 or earlier by agreement.

The successful applicant will join a team of UoD and JHI researchers, led by Prof. Andy Flavell, addressing the diversity and evolution of heterochromatic DNA in barley. The project will involve parallel approaches to assess firstly gene diversity and evolution across heterochromatin and euchromatin, and secondly the specific DNA sequences that are associated with the spectrum of modified histones in these chromatin compartments.

Specific Research:

- Develop and apply exome capture/NGS technology in barley.
- Develop and apply CHIP-seq in barley.
- Analyse NGS output data from the above experiments to identify corresponding gene diversity and histone modification parameters across the barley genome.
- Relate these output data to each other and to the chromatin environment, as defined by cytology and recombination rate.
- Identify the key parameters which define the heterochromatic state in barley, the effects of this state upon genomic diversity and the stability of heterochromatin in barley.

Applicants should have a biological research background and experience in one or more of the following: molecular genetics and genomics, population genetics, bioinformatics. The ability to program using an appropriate language (e.g. Java, Perl, R, Python) would be an advantage.

How to Apply:

To apply on-line please visit: www.dundee.ac.uk/jobs. If you are unable to apply on-line please contact Human Resources on (44) 1382 386209 (answering machine) for an application pack. Please quote reference number LS0087.

For informal enquiries and further particulars contact Prof. Andy Flavell, e-mail: a.j.flavell@dundee.ac.uk. Applications sent directly to this address will not be considered).

Informative websites:

Division of Plant Sciences, University of Dundee (<http://www.lifesci.dundee.ac.uk/research/ps>)
The James Hutton Institute (<http://www.hutton.ac.uk/>)

The University of Dundee is committed to equal opportunities and welcomes applications from all sections of the community. The University of Dundee is a Scottish Registered Charity, No. SC015096.